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PUMPS THE SMART CHOICE

6"

WF "T" SS Series

6" Rewindable Water-Filled Submersible Motor

**"Experience the Difference,
The Ultimate Choice for Your Water Needs!"**

50/60Hz

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NIAGARA 6" WF "T" SS Submersible Motor is specially designed with the latest manufacturing techniques. Years of experience, superior design and better manufacturing have resulted in the development of this range of motors, which are efficient and reliable in operation. Strict quality assurance during the total process assures trouble-free and reliability in operation requiring minimum maintenance.



Applications

Built for coupling with submersible multistage high and low load thrust 6" pumps for clean water deep well.

Technical Features

- 6" WF "T" SS Series submersible Motor are Water Lubricated and rewindable.
- Upper/Lower bracket and Motor base are Stainless Steel.
- Motor shaft is of AISI 420 grade or above.
- Stator shell is of AISI 304 grade.
- Flange and shaft protrusion as per NEMA standard.
- Water lubricated radial and thrust bearing.
- Degree of protection: IP 68.
- Mounting: vertical/horizontal.
- Single phase motors are capacitor start capacitor run.
- Dynamically balanced rotor ensure smooth running.
- Solid copper bars inserted in to our piece billet rotor offer great rigidity.
- Motor cable length: 3.5 Meter / 3 Core.

  Easily rewindable (wet wound) induction motor with PE insulated windings Class B.

Operating Limits

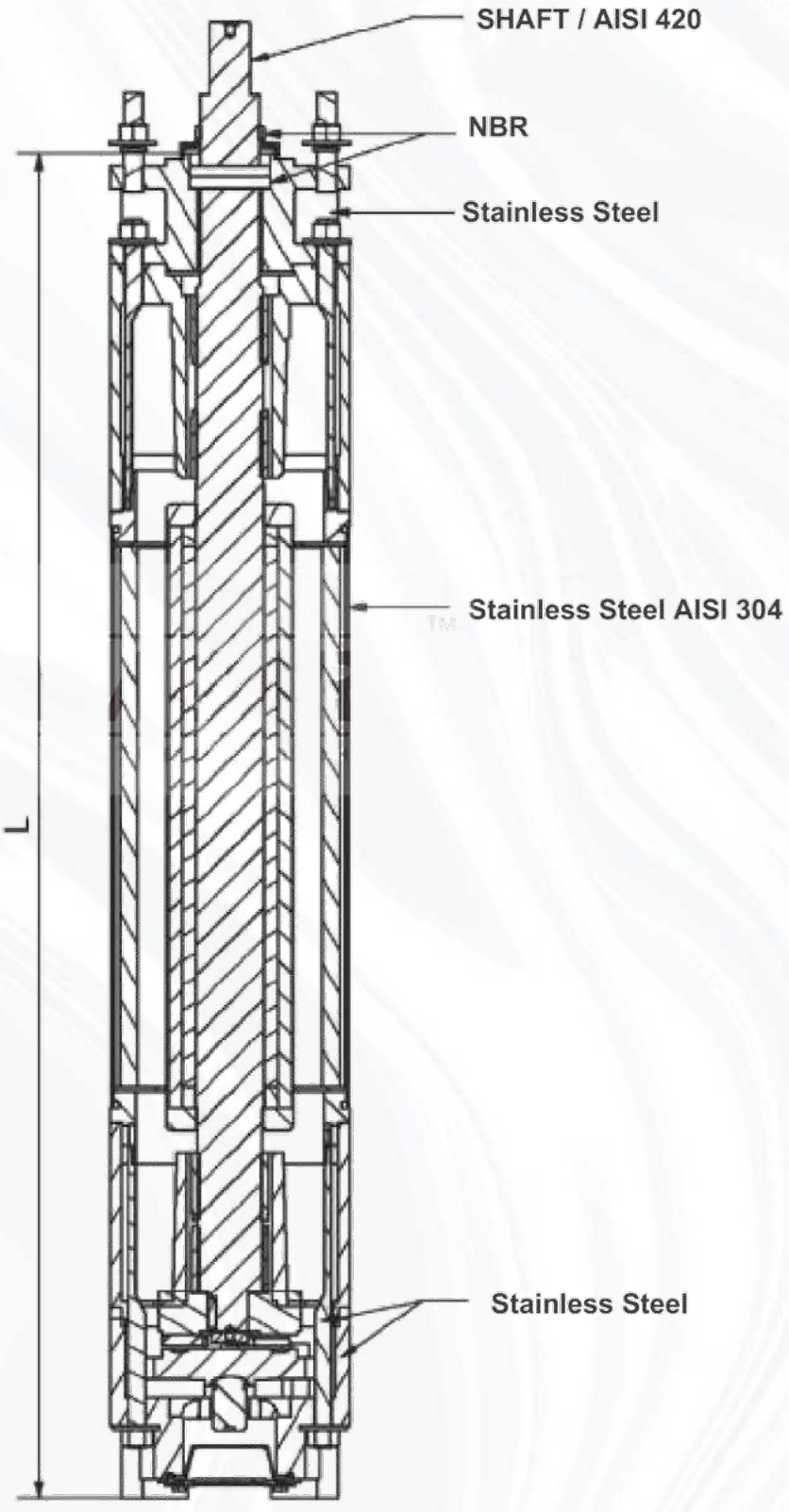
- Maximum allowable rating voltage fluctuation +6% / -10%.
- Range: 2.2 kW to 45 kW (3 to 60 HP).
- Speed: 2900 RPM 50 Hz / 3500 RPM 60 Hz.
- Maximum liquid temperature: 50° C.
- Rotation: Clockwise when viewed from motor end.

Versions

- Single phase 2.2 kW to 5.5 kW, 220-230 Volt / 50 Hz.
- Three phase 2.2 kW to 45 kW, 380-400-415 Volts / 50 Hz.
- Three phase 2.2 kW to 45 kW, 230-380-460 Volts / 60 Hz.

6" WF "T" SS Series

6" WF "T" SS MOTOR — CROSS SECTIONAL DRAWING

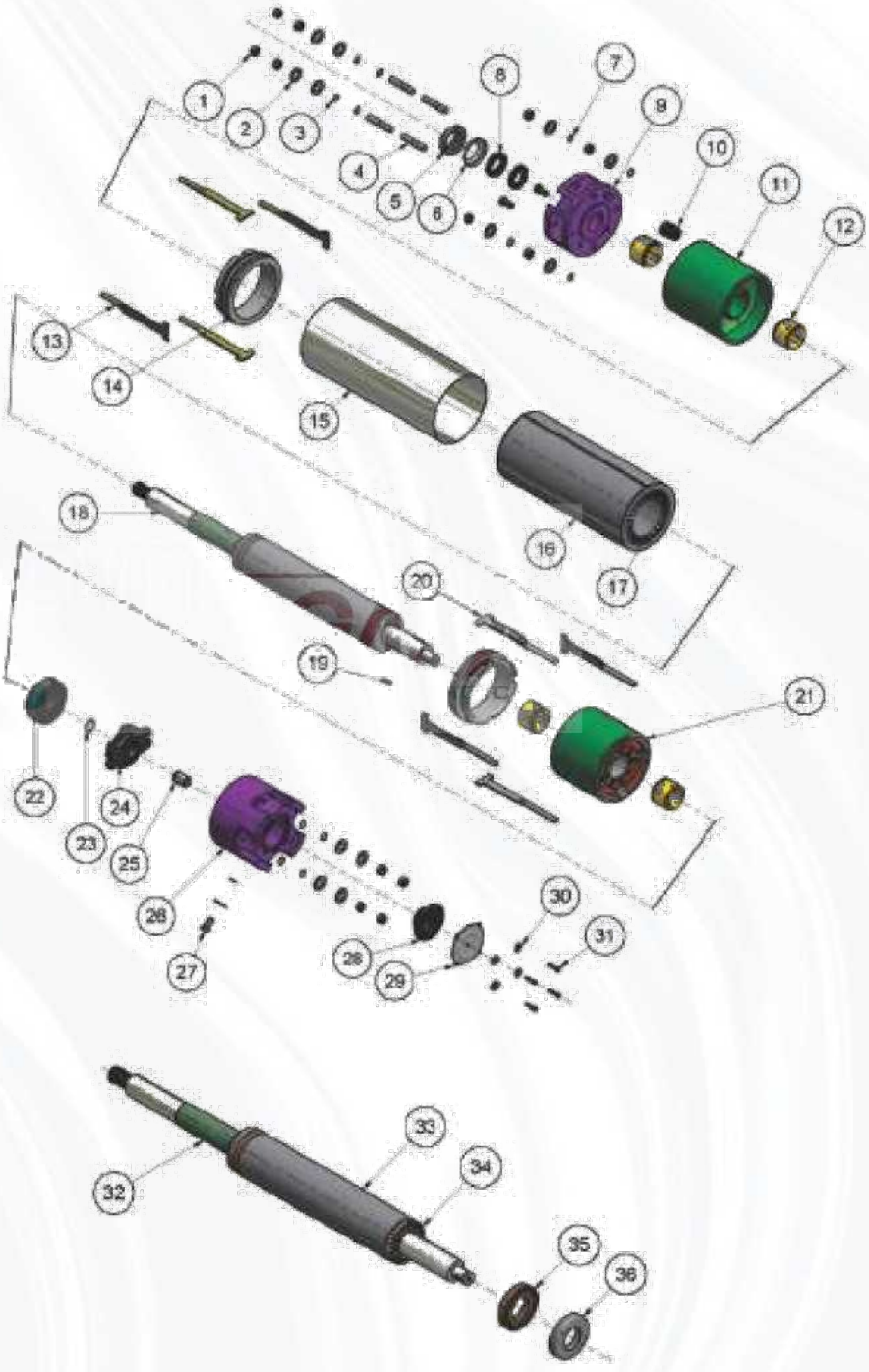


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6" WF "T" SS Series

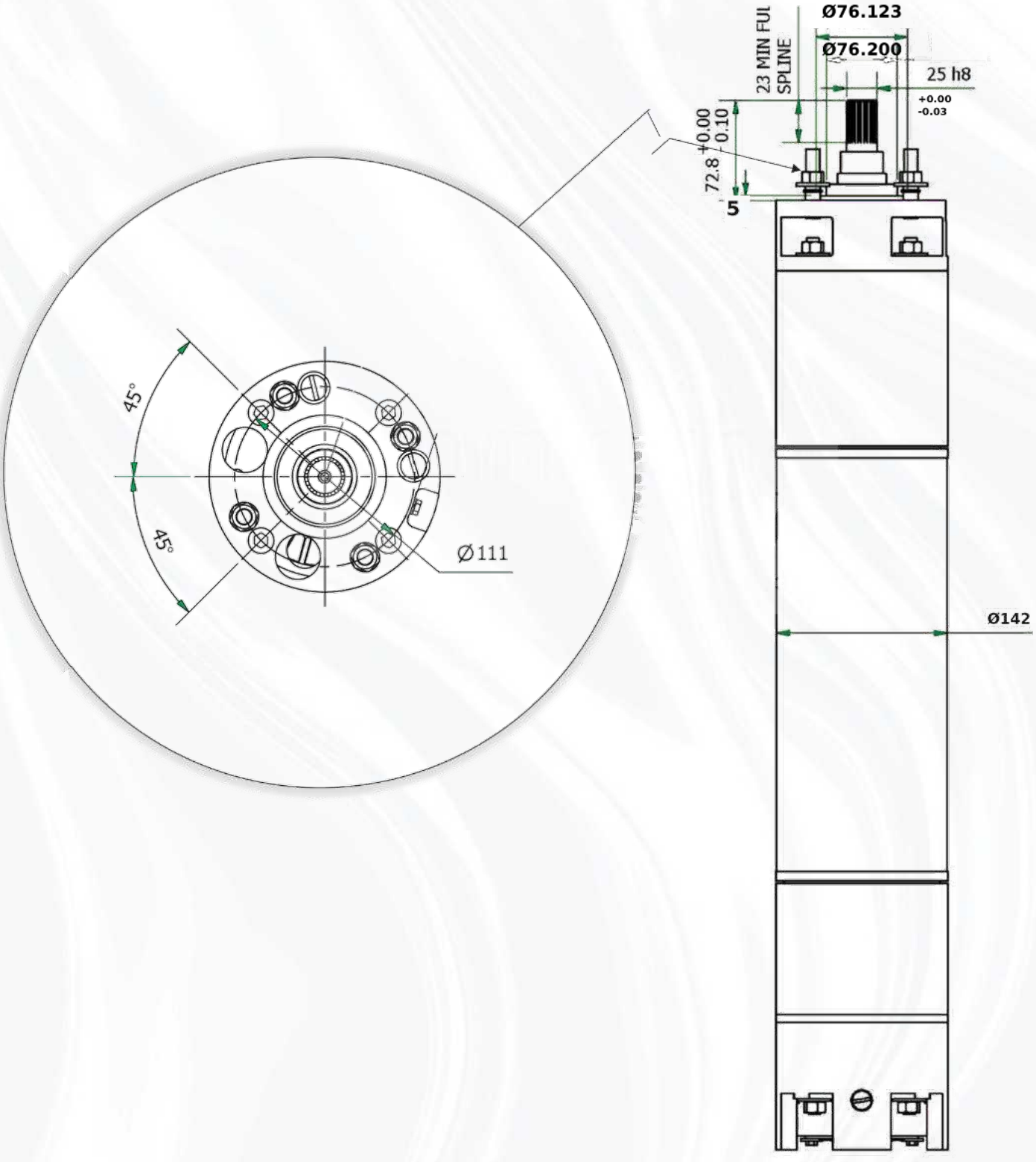
6" WF "T" SS MOTOR — EXPLODED VIEW

Sr. No.	Part Name
1	Nut
2	Spring Washer
3	Plain Washer
4	Stud
5	S.S. Sand Guard
6	Rubber Sand Guard
7	Drain Plug O-Ring
8	Oil Seal
9	Connective
10	Rubber Grommet
11	Upper Housing
12	Carbon Bearing Bush
13	Upper T-Bolt
14	End Ring
15	Stator Shell
16	Stator Stamping
17	End Lamination
18	Spline Shaft
19	Bearing Key
20	Lower T-Bolt
21	Lower Housing
22	Thrust Bearing Plate
23	Cir Clip
24	Thrust Bearing
25	Rocker Support
26	Motor Base
27	Drain Plug
28	Diaphragm
29	Base Plate
30	Plain Washer
31	Allen Cap
32	Rotor
33	Rotor Stamping
34	Copper Rod
35	Copper Ring
36	Balance Ring



6" WF "T" SS Series

6" WF "T" SS MOTOR — DIMENSIONAL DRAWING



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6" WF "T" SS Series

Submersible Rewindable Motor

6" WFT SS

6" Submersible Rewindable Motor Performance Data 50 Hz

6 Inch Water Filled Motor

MOTOR TYPE	PN		Thrust Load (N)	Un (V)	IN	IA	nN min-1	η (Eff.) (%) AT % LOAD			COS Ø (P.F) AT % LOAD			TN (Nm)
	HP	kW			(Amps)			50	75	100	50	75	100	
6" WFT SS 55	5.50	4.00	15500	380	8.80	4.10	2895	70.3	74.5	75.8	0.64	0.74	0.81	13.40
				400	8.50	4.00	2910	71.5	75.3	76.2	0.62	0.72	0.80	13.30
				415	8.20	4.10	2915	71.6	75.0	76.0	0.60	0.70	0.78	13.30
6" WFT SS 75	7.50	5.50	15500	380	13.00	4.10	2865	72.6	76.5	77.5	0.66	0.77	0.84	18.60
				400	12.40	4.00	2885	73.1	76.6	77.7	0.63	0.74	0.82	18.50
				415	12.60	4.10	2895	73.6	77.4	78.3	0.62	0.73	0.80	18.50
6" WFT SS 10	10.00	7.50	15500	380	16.90	5.10	2875	73.9	77.0	78.3	0.66	0.77	0.84	25.40
				400	16.10	4.95	2885	75.2	78.0	79.0	0.65	0.76	0.83	25.30
				415	16.00	4.85	2890	75.6	78.5	79.4	0.62	0.74	0.81	25.20
6" WFT SS 12	12.50	9.30	15500	380	21.00	5.15	2865	75.0	78.8	80.3	0.66	0.76	0.83	31.60
				400	20.50	5.10	2870	77.0	80.0	80.9	0.65	0.75	0.81	31.50
				415	20.10	4.95	2880	77.3	80.1	81.0	0.63	0.73	0.80	31.40
6" WFT SS 15	15.00	11.00	15500	380	24.50	5.25	2855	76.4	79.3	80.9	0.66	0.76	0.83	37.50
				400	24.10	5.20	2880	77.1	80.8	82.0	0.64	0.76	0.82	37.20
				415	23.90	5.35	2885	77.8	81.0	82.0	0.62	0.74	0.80	37.20
6" WFT SS 17	17.50	13.00	27500	380	28.40	5.20	2865	78.1	81.1	82.6	0.69	0.79	0.84	43.40
				400	27.90	5.15	2885	78.9	82.0	82.8	0.67	0.77	0.83	43.00
				415	28.00	5.30	2890	79.3	82.2	83.3	0.62	0.74	0.80	42.90
6" WFT SS 20	20.00	15.00	27500	380	32.30	5.20	2865	78.1	81.1	82.4	0.69	0.79	0.85	50.90
				400	31.70	5.15	2885	78.9	82.0	82.8	0.67	0.77	0.83	50.60
				415	31.50	5.30	2890	79.3	82.2	83.3	0.62	0.74	0.80	50.50
6" WFT SS 25	25.00	18.50	27500	380	39.70	5.10	2865	78.3	81.3	82.5	0.69	0.79	0.84	63.00
				400	39.20	5.20	2875	79.0	82.0	83.0	0.66	0.78	0.82	62.60
				415	39.10	5.30	2885	79.3	82.2	83.3	0.63	0.74	0.80	62.40
6" WFT SS 30	30.00	22.00	27500	380	44.30	5.10	2865	78.5	81.5	83.5	0.70	0.80	0.85	74.70
				400	44.00	5.20	2890	79.3	82.8	83.7	0.66	0.76	0.83	74.10
				415	44.50	5.20	2895	79.6	83.0	84.1	0.62	0.75	0.82	74.00
6" WFT SS 35	35.00	26.00	27500	380	56.30	5.20	2870	78.7	81.6	83.4	0.71	0.79	0.85	88.20
				400	55.50	5.25	2890	79.5	82.8	84.0	0.66	0.76	0.83	87.60
				415	56.00	5.20	2900	80.0	83.2	84.1	0.62	0.75	0.80	87.30
6" WFT SS 40	40.00	30.00	27500	380	63.70	5.25	2885	79.0	82.7	84.2	0.70	0.80	0.86	101.20
				400	63.50	5.30	2895	80.2	84.0	84.8	0.65	0.78	0.85	100.90
				415	64.00	5.35	2900	81.1	84.1	85.5	0.63	0.75	0.82	100.70
6" WFT SS 50	50.00	37.00	27500	380	78.10	5.35	2885	79.7	82.6	84.0	0.71	0.80	0.86	124.90
				400	77.50	5.30	2900	80.3	83.9	85.0	0.66	0.79	0.85	124.20
				415	78.80	5.35	2900	81.2	84.0	85.2	0.64	0.75	0.83	124.20
6" WFT SS 60	60.00	45.00	27500	380	89.50	5.40	2890	80.1	82.8	84.2	0.72	0.80	0.86	148.40
				400	89.00	5.35	2900	80.6	84.0	85.1	0.68	0.79	0.86	148.20
				415	90.00	5.40	2900	81.5	84.0	85.3	0.65	0.76	0.84	148.30

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Submersible Rewindable Motor

6" WFT SS

6" Submersible Rewindable Motor Performance Data 60 Hz

6 Inch Water Filled Motor

MOTOR TYPE	PN		Thrust Load (N)	Un (V)	IN	IA	nN min-1	η (Eff.) (%) AT % LOAD			COS Ø (P.F) AT % LOAD			TN (Nm)
	HP	kW			(Amps)			50	75	100	50	75	100	
6" WFT SS 55	5.50	4.00	15500	230	16.30	4.25	3480	69.6	75.6	76.8	0.63	0.74	0.79	11.20
				380	10.00	4.55	3480	71.0	76.4	77.0	0.65	0.75	0.81	11.20
				460	8.50	4.65	3500	70.2	76.5	77.7	0.66	0.75	0.79	11.10
6" WFT SS 75	7.50	5.50	15500	230	25.90	5.32	3480	74.6	78.0	78.9	0.63	0.75	0.80	15.40
				380	14.50	4.90	3480	75.8	78.4	78.9	0.65	0.76	0.81	15.40
				460	12.70	4.75	3500	74.9	77.6	78.7	0.65	0.75	0.81	15.30
6" WFT SS 10	10.00	7.50	15500	230	32.40	5.42	3480	76.0	78.6	78.6	0.65	0.76	0.82	20.90
				380	18.60	5.30	3480	76.5	79.4	80.0	0.67	0.78	0.83	20.90
				460	16.50	5.10	3500	75.6	78.7	78.8	0.66	0.76	0.82	20.80
6" WFT SS 12	12.50	9.30	15500	230	41.20	5.60	3480	75.6	80.0	79.8	0.65	0.75	0.83	26.00
				380	22.60	4.88	3480	77.0	80.0	80.0	0.67	0.78	0.84	26.00
				460	19.00	4.93	3500	77.1	80.3	80.6	0.66	0.76	0.81	25.80
6" WFT SS 15	15.00	11.00	15500	230	46.00	5.62	3480	77.4	80.2	80.5	0.65	0.77	0.83	30.70
				380	25.90	5.25	3480	78.5	81.0	81.0	0.67	0.78	0.84	30.70
				460	21.50	5.28	3500	77.5	81.1	81.7	0.67	0.77	0.82	30.60
6" WFT SS 17	17.50	13.00	27500	230	55.40	5.65	3480	77.9	81.9	82.6	0.65	0.77	0.83	35.20
				380	33.80	5.36	3480	79.0	82.0	82.7	0.68	0.78	0.84	35.20
				460	27.20	5.38	3500	78.0	81.4	82.5	0.67	0.77	0.83	35.10
6" WFT SS 20	20.00	15.00	27500	230	61.00	5.69	3480	78.0	82.0	82.7	0.65	0.77	0.83	41.90
				380	34.00	5.38	3480	79.0	82.1	82.9	0.68	0.78	0.85	41.90
				460	28.50	5.40	3500	78.1	81.6	82.7	0.67	0.77	0.83	41.70
6" WFT SS 25	25.00	18.50	27500	230	77.70	5.70	3480	78.0	82.7	83.6	0.65	0.77	0.84	51.70
				380	44.50	5.70	3480	78.6	83.0	84.0	0.68	0.79	0.85	51.70
				460	37.00	5.72	3500	78.1	82.7	83.7	0.68	0.78	0.83	51.40
6" WFT SS 30	30.00	22.00	27500	230	91.00	5.65	3480	79.0	84.0	84.8	0.65	0.75	0.84	61.50
				380	50.60	6.25	3480	79.5	84.1	84.9	0.68	0.79	0.85	61.50
				460	45.00	5.80	3500	78.7	82.8	83.7	0.68	0.78	0.83	61.20
6" WFT SS 35	35.00	26.00	27500	230	97.50	5.72	3480	80.0	83.6	84.5	0.66	0.79	0.85	72.70
				380	60.00	6.25	3480	80.5	84.0	85.0	0.70	0.80	0.86	72.70
				460	49.70	6.25	3500	78.7	83.8	84.7	0.70	0.80	0.83	72.30
6" WFT SS 40	40.00	30.00	27500	230	120.10	5.78	3480	79.6	83.5	84.7	0.66	0.79	0.85	83.90
				380	66.50	6.19	3480	80.5	84.0	85.0	0.70	0.81	0.85	83.90
				460	55.20	6.20	3500	80.0	83.9	84.8	0.70	0.80	0.84	83.40
6" WFT SS 50	50.00	37.00	27500	230	130.40	5.78	3480	80.2	84.0	84.6	0.66	0.80	0.85	103.50
				380	84.70	5.62	3480	80.4	84.1	85.0	0.69	0.81	0.86	103.50
				460	70.10	5.65	3500	78.8	83.5	84.7	0.70	0.79	0.84	102.90
6" WFT SS 60	60.00	45.00	27500	230	174.50	5.79	3480	80.2	84.0	84.6	0.66	0.81	0.86	121.50
				380	101.30	5.65	3480	80.4	84.1	85.0	0.69	0.81	0.86	121.30
				460	85.50	5.68	3500	78.9	83.5	84.7	0.70	0.79	0.84	120.50

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